SYSTEMATIC ANNUAL SEARCH AND REVIEW PROTOCOL

Highlights

- The Systematic Annual Search and Review (SASR) aims to ensure that the Clearinghouse for Labor Evaluation and Research (CLEAR) includes the most up-to-date literature on topics of interest to CLEAR audiences, no matter how much evidence is available for a topic. To accomplish this, the SASR focuses on identifying labor-related research based on the time period it was released, rather than its topical focus.

- The SASR identifies causal studies of a range of labor-related interventions (including programs, policies, and strategies, such as employment and training programs, unemployment services, workplace health and safety programs, employment benefits, and workers' compensation), assesses the quality of causal evidence, and makes this evidence accessible to broad audiences on an annual basis. Causal studies are those that examine the effectiveness of an intervention.

- The SASR considers all causal studies on labor-related interventions to be eligible. CLEAR implements the SASR each year to find the latest research, or may run a search for a time frame of interest to the U.S. Department of Labor (DOL). Eligible studies are then screened for relevance to CLEAR audiences. This screening process includes studies examining interventions across a variety of topic areas. All studies must be published in English.

- The SASR assesses the strength of a causal study's design and methodology and rates a study as providing causal evidence that is high, moderate, or low quality.

Objective

The purpose of the SASR is to ensure CLEAR includes the most up-to-date literature on labor-related topics, including topics with larger and smaller amounts of evidence. To accomplish this, the SASR focuses on identifying and reviewing causal studies on labor interventions of relevance to CLEAR audiences that are released in a particular time period. Criteria for relevance were informed by extensive discussion with DOL, Federal evidence review staff, independent contractors involved in supporting the CLEAR program, and a panel of independent subject matter experts. Beginning in 2021, the SASR will be conducted on an annual basis. However, SASRs may also be conducted based on a target year when the included studies were released or multiyear time period to identify relevant studies previously omitted from CLEAR. Research relevant for CLEAR audiences includes studies that examine interventions that are labor related. (Table B.1 in Appendix B lists relevant topics.) Table 1 lists the outcomes of interest for the SASR, along with their definitions.

To be eligible for review as part of the SASR, studies must examine an outcome of interest, use analytical strategies to assess the effectiveness of an intervention, and be released in the target year and published in English; in addition, the studied intervention must take place in the United States. [1]

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[1] The restriction to research from the United States means that the SASR does not include some of the research needed to update topic areas that include research from other countries. To update these topic areas, CLEAR conducts literature searches with keywords that are more targeted to the topic area but not restricted to the United States. The searches may also examine additional databases and websites, as appropriate.

Table 1. Outcome domains and definitions

Outcome domain	Definition
Attitudes	People's opinions or feelings, particularly about their work, job, workplace, or employer, though this varies from study to study
Child labor	Outcomes related to programs designed to reduce employment below the minimum age established in national legislation, though the definition may vary by study, time, and location
Compliance	Employer behavior, particularly with respect to employment, compensation, and workplace conditions, that follows state and federal regulations. (Note that outcomes related to compliance with health and safety regulations fall under the health and safety domain.)
Earnings and wages	Payment a person receives in return for work performed during a certain period of time. Payment might be calculated in terms of a salary, commission, hourly wage rate, or piece rate basis, and people might receive payments on various schedules (such as weekly or every other week).
Education and skills gains	Increases in educational accomplishments or skills as reflected by years of schooling; accumulation of educational credits; or receipt of diplomas, degrees, certificates, or certifications
Employer benefits receipt	The act of a person receiving nonwage compensation from employers such as paid leave, supplementary pay or bonuses, insurance benefits, or retirement benefits
Employment	Working or obtaining work for pay from an employer, or for profit or fees in one's own business
Health and safety	The degree to which workers are free from illness or injury and are in a state of physical, mental, and social well-being in the workplace. This is maintained by identifying and controlling the risks arising from workplace hazards.
Public benefits receipt	Receiving benefits from the government, such as unemployment insurance, workers' compensation, Temporary Assistance for Needy Families, Social Security, or Medicare
Training	Programs and education to build knowledge and skills that prepare people for general employment or specific jobs or occupations

Note: These domains and their definitions were developed in consultation with multiple DOL agencies and subagencies and subject matter experts. The domains are designed to include all potentially relevant outcomes. This protocol will be revised if other relevant outcome domains are identified.

The remainder of this document further describes the research eligible for review (including eligible outcomes, study designs, and topics) and outlines the causal evidence guidelines used in the reviews. Appendix A provides details about the systematic search procedures and the screening process by which CLEAR selects eligible studies for review. Appendix B lists the set of tags used to categorize the studies considered for review.

Eligibility criteria

CLEAR conducts broad literature searches (see Appendix A for details) to identify all the research papers and reports released in the period targeted for the SASR that use causal designs to examine the effectiveness of labor-related studies (see Table B.1 in Appendix B for the full list of topics and subtopics that DOL considers as labor related). After conducting these searches, CLEAR determines whether studies are eligible for review, using the following criteria:

- **Outcome:** The study must examine an outcome in at least one relevant domain. Table 1 lists the domains of interest.

- **Study design:** The study must use analytical strategies to assess the effectiveness of an intervention. Under the [Causal Evidence Guidelines](#), CLEAR currently reviews studies with the following designs: randomized controlled trials (RCTs), interrupted time series (ITS) studies, and other quasi-experimental and nonexperimental studies (including studies using matched comparison groups, difference-in-differences, instrumental variables, and fixed effects; correlational or descriptive studies that make causal claims; and studies using regression-based models such as ordinary least squares, hazard, logit, probit, and tobit models).[2] (See pages 4 and 5 of this document for details on comparison groups, subgroups and settings, and pages 5 and 6 for details on subgroup findings.)

- **Topic:** The study must examine the effectiveness of a labor-related intervention that focuses on at least one topic relevant for DOL and CLEAR audiences (as determined based on extensive meetings with subject matter experts; see Appendix B).

- **Geographical area:** The studied intervention must take place in the United States and must use a sample of firms, workers, or other entities in the United States.

- **Time frame:** Only studies released in the target period for the search are eligible for review.

- **Language:** The study must be published in English to be considered for inclusion in CLEAR.

- **Population characteristics:** This protocol does not have restrictions based on population characteristics.

Causal evidence guidelines specific to the SASR

CLEAR employs a standardized, systematic review process as documented in its CLEAR Policies and Procedures document.[3] The SASR includes experimental, quasi-experimental, and nonexperimental causal research that CLEAR reviews and rates based on the eligibility criteria previously described and the CLEAR Causal Evidence Guidelines.[4] In assessing the quality of the evidence, CLEAR uses ratings of high, moderate, or low. Only two types of studies may receive a high rating: well-conducted RCTs with low attrition and no obvious confounds to the RCT design, and ITS designs with sufficient replication. Studies using matched comparison groups, difference-in-differences, instrumental variables, and fixed effects and studies using regression-based models such as ordinary least squares, hazard, logit, probit, and tobit models may receive a moderate rating. Correlational or descriptive studies that make causal claims and studies that use pre/post tests such as analysis of variance or t-tests may only receive a low rating. Only eligible studies receive an evidence rating.

The CLEAR Causal Evidence Guidelines describe in detail the criteria for rating the quality of evidence, although there is room for customization within protocols. The guidelines include additional guidance specific to the SASR for the following factors:

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[2] CLEAR is in the process of developing evidence guidelines for regression discontinuity designs. Studies with regression discontinuity designs are currently reviewed under the guidelines for descriptive study reviews and are not yet considered eligible for the SASR.

[3] CLEAR Policies and Procedures are available at https://clear.dol.gov/about.

[4] The CLEAR Causal Evidence Review Guidelines are available at https://clear.dol.gov/about.

Attrition standard. In assessing an RCT, the SASR uses a conservative attrition standard (see the Causal Evidence Guidelines), because most CLEAR topic areas use this standard for attrition.[5] If CLEAR determines that an RCT has high attrition, the study cannot receive a high causal evidence rating, and CLEAR uses regression analysis criteria to review the study.

Control variables for quasi-experimental and nonexperimental designs and RCTs with high attrition. To receive a moderate evidence rating, quasi-experimental and nonexperimental causal research (along with RCTs with high attrition) must include specific control variables in its regression analysis or use fixed effects (see Causal Evidence Guidelines, Criterion Regression.1). Regression methods that incorporate a matching design must match on these control variables; if not, they must include them as controls in the regression.

For the SASR, studies examining outcomes for **individuals or groups of individuals** must include statistical controls for possible pre-intervention confounding factors.

For further information about how the evidence review was conducted, please contact DOL's Chief Evaluation Office at chiefevaluationoffice@dol.gov.

Studies examining outcomes for **organizations** (such as firms or plants) or **groups of organizations** must include statistical controls for the following:

- A measure of size (for example, number of employees, number of sites, annual revenue, annual production)

- State, if multiple states are included in the analysis

- Sector (for example, manufacturing, mining, construction), if multiple sectors are included in the analysis

- A pre-intervention measure of each outcome of interest

Table 2 specifies the pre-intervention measure requirements by outcome domain. Unless otherwise noted, these baseline measures must be collected before (and may be collected immediately before) the intervention begins.

Also under this protocol, studies can include analyses conducted at the group level (an aggregation of entities, such as institutions, employers, or communities). For group analyses, it is typically necessary to include group-level controls for the same variables as in the individual analyses. In this case, though, the findings should be interpreted with caution because for group-level studies, effects might reflect changes in group composition as well as an intervention's effects on outcomes. However, group-level studies can still receive a high or moderate rating (see Causal Evidence Guidelines, Special criterion for estimates of group-level effects for details).

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[5] Note that the What Works Clearinghouse currently refers to this attrition threshold as the "cautious" attrition threshold.

Table 2. Required controls for pre-intervention measure of outcome, by outcome domain

Outcome domain	Pre-intervention measure requirements
Attitudes	At least one measure of attitudes *and* at least one measure of either earnings or employment status
Child labor	At least one measure of child labor *and* at least one measure of household socioeconomic status, such as household income, poverty, asset ownership, parental education, or social class
Compliance	**For studies of individuals:** At least one measure of earnings or employment status (such as earnings or wages, employment status, or measures of work history) **For studies of organizations:** At least one pre-intervention measure of organizational compliance
Earnings	Previous earnings at least one year before program participation (meaning at least 366 days before the start of the program)
Education and skill gains	Education level or academic achievement *and* socioeconomic status. Academic achievement measures could include prior grade point average, standardized test scores, placement test scores, and so on. Socioeconomic status could include receipt of need-based financial aid (Pell Grant or subsidized loans), student's tax status (dependent or independent), student's household composition (number of adults and number of children), student's household income, public benefit receipt, and parents' highest education.
Employer benefits receipt	At least one measure of earnings or employment status (such as pre-intervention earnings or wages, pre-intervention employment status, or measures of pre-intervention work history)
Employment	Employment status *or* earnings at least one year before program participation (meaning at least 366 days before the start of the program)
Health and safety	At least one measure of health status or experience with safety incidents
Public benefit receipt	Public benefit receipt *or* individual or household socioeconomic status
Training	Measure of training (such as pre-intervention receipt, duration, or intensity of a job-related training)

Note: Required pre-intervention measures are taken from CLEAR topic area protocols, which have been subject to review by subject matter experts.

Changes in group composition. In order for studies with nonexperimental designs and analysis at the group level to receive a moderate causal evidence rating, the composition of the intervention and comparison groups should not change in ways related to the outcome of interest (Causal Evidence Guidelines, Criterion Regression.4). Under this protocol, CLEAR uses the conservative attrition standard to assess whether changes in group composition are small or large (see Causal Evidence Guidelines, Special criterion for estimates of group-level effects for details). Group-level designs are subject to additional criteria, but effects should still be interpreted with caution due to the potential for changes in group composition to drive estimated impacts.

Pre-intervention data for ITS designs. An ITS design must use data drawn from a sufficiently long period of time before an intervention's implementation (Causal Evidence Guidelines, Criterion ITS.2). Under this protocol, data must cover at least one year before the implementation of the intervention.

Subgroup findings. Findings for the full study sample are used to assign a study a causal evidence rating. CLEAR does not combine findings across subgroups but does report findings on subgroups of study participants. These findings do not contribute to the causal evidence rating.

For previous review efforts, CLEAR has documented effects for several specific subgroups of individuals or firms. For further information about how the evidence review was conducted, please contact DOL's Chief Evaluation Office at chiefevaluationoffice@dol.gov.

APPENDIX A: LITERATURE SEARCH PROCESS

This appendix describes the search criteria and considerations for the SASR. CLEAR restricts its review of labor-related studies to research released (that is, published or made public) during a specific time period.[6]

Database search

For the SASR, CLEAR searches the following electronic databases: Academic Search Premier, Business Source Corporate Plus, EconLit, Education Research Complete, SocIndex with full text, E-Journals, ERIC, APA PsycINFO, ProQuest Dissertations and Theses, and Scopus.

CLEAR uses a modified Peer Review of Electronic Search Strategies (PRESS) method (McGowan et al. 2016) to create and refine the search terms. Under this method, one librarian carefully searches the selected electronic databases, documenting each step of the process. Another librarian then applies most of the PRESS 2015 Evidence-Based Checklist to provide guidance and check the results (McGowan et al. 2016, Table 1).[7]

CLEAR searches for eligible literature using five sets of keywords: outcome terms, impact terms, design terms, study terms, and geographic terms (Table A.1). Each set is linked with all of the other sets using the Boolean operator AND (or NOT for the terms in the geographic set). Within each set, each keyword is linked with all of the other keywords using the Boolean operator OR. Specifically, CLEAR searches for studies that had at least one of all of the following: outcome term, impact term, design term, study term, and geographic term.[8]

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[6] Many publications have a draft version that has not been accepted or an online version that is released before print, in addition to a print version. For the SASR, CLEAR considers a study to be eligible for review if any version of the publication was released in the target year. If multiple versions were released, such as both an online and print version, the print version is reviewed (so long as any version of the publication was released in the target year). In addition, if multiple citations present the same findings, CLEAR reviews a study so long as at least one of the related citations was released in the target year.

[7] McGowan, Jessie, Margaret Sampson, Douglas M. Salzwedel, Elise Cogo, Vicki Foerster, and Carol Lefebvre. "PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement." *Journal of Clinical Epidemiology,* vol. 75, 2016, pp. 40–46.

[8] For the SASR, CLEAR validated the search strategy using a modified version of the PRESS method.

Table A.1. Keywords used in comprehensive search

Eligibility criteria	Keywords
Outcome terms (searched in subject and keyword fields)	earn* OR job OR employer OR employment OR employee OR unemploy* OR labor OR labour OR wage* OR worker* OR workplace OR "industrial safety" OR occupation* OR "affirmative action" OR "out-of-work" OR "return to work"
Impact terms (searched in title, abstract, subject, and keyword fields)	impact* OR effect* OR efficac* OR benefit* OR improv* OR progress OR grow* OR increas* OR decreas* OR reduc* OR gain* OR decline OR higher OR lower OR success*
Design terms (searched in title, abstract, subject, and keyword fields)	assign* OR baseline OR causal OR counterfactual* OR "comparison group" OR "control group" OR "difference*-in-difference*" OR "difference* in difference*" OR experiment* OR "fixed effect*" OR "instrumental variable*" OR match* OR "non experimental" OR "non-experimental" OR nonexperimental OR "quasi experimental" OR "quasi-experimental" OR quasiexperimental OR random* OR RCT OR QED OR regression OR "two stage least squares" OR "two-stage least squares" "interrupted time series"
Study terms (searched in title, abstract, subject, and keyword)	study OR studies OR research OR evaluat* OR analysis OR examin* OR intervention* OR trial OR pilot OR assess* OR program* OR treatment OR practice OR strateg* OR approach* OR technique OR curricul* OR demonstration OR model* OR policy OR policies OR initiative
Geographic terms (searched in full text)	"America*" OR "United States" OR "U.S." OR "US" OR Alabam* OR Alaska* OR Arizona* OR Arkansa* OR Californi* OR Colorad* OR Connectic* OR Delaware* OR Florid* OR Georgia* OR Hawaii* OR Idaho* OR Illinoi* OR Indiana* OR Hoosier OR Iowa* OR Kansa* OR Kentuck* OR Louisian* OR Maine* OR Maryland* OR Massachus* OR "Bay State*" OR Michigan* OR Minnesota* OR Mississippi* OR Missouri* OR Montana* OR Nebraska* OR Nevada* OR "New Hampshir*" OR "New Jersey*" OR "New Mexic*" OR "New York*" OR Carolin* OR Dakota* OR Ohio* OR Oklahoma* OR Oregon* OR Pennsylvania* OR "Puerto Ric*" OR "Rhode Island*" OR Tennesse* OR Texas OR Texan OR Utah* OR Vermont* OR Virginia* OR Washington* OR Wisconsin* OR Wyoming* OR "District of Columbia" OR "Washington D.C." OR Samoa* OR Guam* OR Mariana* OR "Virgin Island*"
Exclude (searched in full text)	"Latin America*" OR "South America*" OR "Pan America*"

Gray literature search

As part of the SASR, CLEAR performs targeted searches of the websites of the following organizations to identify additional studies:

- Abdul Latif Jameel Poverty Action Lab
- Abt Associates
- American Enterprise Institute
- American Institutes for Research
- Association for Public Policy Analysis and Management
- Booz Allen Hamilton
- Brookings Institution
- Cato Institute
- Center for Economic and Policy Research
- Center for Law and Social Policy
- Center for Science and Engineering Partnerships
- Center for the Study of Urban Poverty
- Congressional Research Service
- Corporation for National and Community Service
- Heritage Foundation
- IMPAQ International
- Institute for Policy Studies
- Johns Hopkins Institute for Health and Social Policy
- Institute for Policy Research
- Institute for Research on Poverty
- IZA
- Joblessness and Urban Poverty Research Program
- Joint Center for Political and Economic Studies
- Massachusetts Budget and Policy Center

- Mathematica
- MDRC
- Multidisciplinary Program in Inequality and Social Policy
- National Bureau of Economic Research
- National Center for Children in Poverty
- National Center for Health Research
- NORC
- Organisation for Economic Co-operation and Development
- Pacific Research Institute
- Public Policy Associates
- Poverty Solutions
- RAND Corporation
- Ray Marshall Center
- Resources for the Future
- RTI International
- Social Policy Research Associates
- SRI International
- Stanford Center on Poverty and Inequality
- The Center on Poverty and Inequality at Georgetown University
- University of Kentucky Center for Poverty Research
- Urban Institute
- U.S. Bureau of Labor Statistics
- U.S. Department of Labor
- U.S. Department of Labor, Chief Evaluation Office

- [U.S. Department of Labor, Employment & Training Administration, Publication Database](#)
- [U.S. Department of Health and Human Services, Administration for Children & Families](#)

- [U.S. Department of Health and Human Services, Administration for Children & Families, Office of Planning, Research, & Evaluation](#)
- [U.S. Government Accountability Office](#)

These sources of research are relevant to the review, but they have restrictions on use of date ranges or on certain fields. Therefore, CLEAR uses the following search string to identify relevant gray literature:

(earnings OR wage OR job OR employer OR employment OR employee OR unemployment OR labor OR worker OR workplace OR workforce)

AND

(impact OR effect OR effective OR effectiveness)

AND

(baseline OR causal OR comparison OR control OR experiment OR experimental OR random OR randomized OR regression OR treatment OR nonexperimental)

AND

(research OR evaluation OR analysis OR intervention OR study OR pilot).

CLEAR also performs keyword searches of research clearinghouses and working paper databases housed on the following publicly available websites: Arnold Ventures, The Campbell Collaboration, Pathways to Work Evidence Clearinghouse, RePEc, Self-Sufficiency Research Clearinghouse, Social Science Research Network, and What Works Clearinghouse.

Additional avenues for inclusion

In some cases, the search might overlook a citation from the target year. If such a citation is identified in the course of other CLEAR activities (for example, a researcher may report that a citation is missing), CLEAR investigates and includes the citation if it meets the eligibility criteria outlined in this protocol.

APPENDIX B: TOPIC TAG GLOSSARY

For details about the list of topics that had been identified as relevant for CLEAR audiences in conducting SASRs in the past, please contact DOL's Chief Evaluation Office at chiefevaluationoffice@dol.gov.